

Celebrating 25 years of Helping to Make DX Happen

INDEXA



Fall 2008

www.indexa.org

Issue 83

A non-profit organization for the enhancement of amateur radio, worldwide peace, and friendship
Daily Information Session — 14.236 MHz @ 23:30z

A Day in the Life of DXpedition—VP6DX

By Eric L. Scace — K3NA

Introduction

On 2008 February 8 Friday, eighteen men and one woman arrived at Ducie Island. During the next three weeks, operating as VP6DX, this team set many new DXpedition records. Here follows the story of one GMT day in the life of this DXpedition—February 17.

00–02z (4PM–6PM)

The battery-powered clock in the field kitchen shows 4 PM on a Saturday local time. A pleasant but warm afternoon begins to fade in intensity as the sun drops toward the western horizon.

As the new GMT day begins, Harry (RA3AUU) logs QSO #74,461 on 15m SSB with Japan. Now continuously on the air for four days and twenty-one hours, the hourly rate averages 630 contacts, or about 15,000 per day. But Europe now sits in darkness and sunset approaches the North American east coast. With the falling MUFs, the first hour of the new GMT day will yield 640 QSOs.

Seven men man radios at two sites. The smaller west camp, with three operating positions, presently runs North Americans on 20m (Carsten, DL6LAU) and 15m CW (André, DL8LAS). The second day of the ARRL DX CW contest has just begun. Our operators on the CW contest bands hand out contest exchanges to every USA and Canadian station that calls in, while interleaving contacts with DXers in other parts of the world. No caller is turned away without a QSO! Robin WA6CDR, the team's lead technician, tests a partially disassembled the OM HF-2500 amplifier at the West-1 operating position.

At the larger east camp none of the four operators

on duty pay much attention to the CW contest; all run SSB. Les (SP3DOI) works mostly Asians, with some Americans mixed in, on 17m. Ben (DL6FBL) races through a huge pileup on 20m, mostly Americans but with the occasional European caller. On 15m a Japanese pileup occupies Harry (RA3AUU). Eric (K3NA), a specialist in "edge" propagation, perches on the cusp of the MUF, waiting for Japan to show on 12m. He has a slow American run going and, one minute into the new GMT day, the afternoon's first JA enters the log. But the next half-hour yields few Asians on voice, and Eric switches to 12m CW at 0030Z. His first contact is RV6LO, which stimulates an exchange of chat messages over the computer network. It's 3AM in Rostovskaya oblast. While a few stations in Portugal and Spain have been worked in 12m SSB an hour ago, zone 16 hasn't been heard for six hours on any band above 17m with one exception: the same RV6LO on 15m CW in the middle of an American pile-up at 2339Z. The operators on duty suspect a remote-controlled station in another country, and flag both contacts as suspicious.

At 01z Robin announces the source of the amplifier's woes: an open 10 ohm 25 watt resistor in the step-start circuit. He hikes back to the east camp, where the technical work tables live under a tarp along with spare parts, to see if he can create a suitable repair.

Because it's Sunday morning in Japan, the team sticks with the higher bands longer than normal, hoping for a rich collection of JA calls at the end of their weekend. Yesterday's runs to Japan were the best

(Continued on page 2)

inside...

INDEXA receives grant from SEDCO convention

A Day in the Life of a DXpedition—VP6DX (con'd)

(Continued from page 1)

to date. Today's reduced east Asia volumes and the dropping MUF combine to force the 01Z hour's rate down to 473.

02–06z (6PM–10PM)

Many design decisions of this expedition derive from one fact: our ship, the research vessel *r/v Braveheart*, carries a maximum thirteen passengers and a crew of six. Seven operating positions staffed full-time demands 168 staff-hours per day. With thirteen operators available, each must be on-air 13 hours a day. This arrangement allows eight hours for sleep and a few hours for meals, bathing and other personal chores, and other tasks essential to the expedition.

One might think that thirteen operators could fully staff eight radios (192 radio-hours/day, or 14–15 hours/day/person). That might be practical for a contest but, as Neville Cheadle (G3NUG) observed, "a DXpedition is a marathon, not a contest". To remain alert and reasonably cheerful in a strange climate, each person requires adequate sleep.

We settled on patterns based on four hour operating shifts and a 28-hour "day". The typical pattern is:

- Two shifts (8 hours) on-air.
- One shift (4 hours) break.
- Two shifts (8 hours) on-air.
- Two shifts (8 hours) rest.

The 28-hour pattern exploits the human circadian rhythm, which extends slightly longer than a calendar day. As the cycle repeats, each operator experiences radio conditions at slightly different times and on different bands, providing for an interesting change of pace. See [Figure 1](#) on Page 3 for today's operator shift schedule.

The pattern also prevents us from assigning the same operator to the same band during the same time of day, a desirable risk-management tool. For example, imagine that the same operator always works the 30m band in the late afternoon. He quickly falls into the pattern of working American and Asian stations, always loud at this time of day... but fails to recognize that, by reversing his 4-square antenna, he can add many long path European and Middle East stations to the log. Day after day he overlooks this opening and, at the end of the expedition, the expedition has squandered an opportunity for a difficult-to-reach part of the world. By using our 28-hour pattern, different operators have the chance to approach a band's pileups differently and make

new discoveries. Gab messages over the logging network (e.g., "Yesterday we worked Ukraine at this time on long path") help convey knowledge to the next day's operators.

While the 28-hour pattern forms a foundation for planning, shift scheduling requires additional juggling. Some operators shoulder additional time-consuming obligations. Robin and Milt, for example, form the technical support team; they surrender several operating shifts each day to maintain and improve the stations, generators, and antennas. Eric sacrifices a 4-hour shift to upload the logs over the satellite Internet link onto the website, to review email messages submitted from the DX audience, and to prepare the next day's operating schedule.

Other operators must fill those on-air shifts, and here the decision to form the operator team primarily with contesters pays off. Each day some operators spend three consecutive shifts on-air (12 hours), extending their "day" to 32 hours.

The thirteen radio men are not the only ones on shifts. Nigel Jolly, owner of the *R/v Braveheart*, and his son Matt (the captain), assign two of the six crew members to work onshore for two to three days. The remaining four stand shifts on board ship. Ducie Island has no harbor or safe anchorage. As winds and sea conditions change the ship must weigh anchor and move to different locations around the atoll. The man on watch also keeps an eye on the weather radar, alerting us over VHF marine radios when showers threaten our camps so we can zip up the tents. The crew wash, dry and deliver laundry daily; and deliver fresh water, fuel and food supplies by jet

(Continued on page 3)

The *INDEXA Newsletter* is a quarterly publication of the International DX Association.

Copyright 2008

Editor & Publisher

John Scott, K8YC; 16212 Walcot Lane
Cornelius, NC 28031 USA
jascott@mi-connection.com

Distribution & Circulation

Bill Jennings, W4UNP; P. O. Box 123
Catawba, SC 29704 USA
w4unp@comporium.net

Send change-of-address information and membership applications to Secretary-Treasurer, Bill Jennings, W4UNP.



Address general correspondence to President Gary Dixon, K4MQG, at gdixon@comporium.net.

A Day in the Life of a DXpedition—VP6DX (con'd)

(75ph) East 1	East 2	(40m) East 3	(30m) East 4	(160m) West 1	(80cw) West 2	(40m) West 3	Z hr	local date/time	Dietmar DL3DXX	Andy UA3AB	Cliff SV1JG	Milt N5IA	Carsten DL6LAU	Robin WA6CDR	Harry RA3AUU	Ben DL6FBL	Eric K3NA	Andre DL8LAS	Robert SP5XVY	Les SP3DOI	Tonno ES5TV
SP3DOI 17ph	RA3AUU 15ph	DL6FBL 12ph	K3NA 10ph or cw	10cw	DL8LAS 15cw to close 80cw	DL6LAU 12cw	22	2pm	(free)	(free)	(free)	antenna	W3 12cw	antenna	E2 15ph	E3 12ph	E4 10ph	W2 15cw to close 80cw	rest	E1 17ph	rest
ES5TV 17ph	SV1JG 15ph to close 20ph	SP3DOI 12ph to close 40ph	SP5XVY 10ph to close 30rtty	DL3DXX 10cw to close	DL8LAS 15cw to close 80cw	UA3AB 12cw to close 40cw	23	6pm	W1 10cw to close	W3 12cw to close 40cw	E2 15ph to close 20ph	gen. service	rest	rest	rest	rest	rest	W2 15cw to close 80cw	E4 10ph to close 30rtty	E3 12ph to close 40ph	E1 17ph
ES5TV 75ph	SV1JG 20ph	RA3AUU 40ph	SP5XVY 10ph to close 30rtty	DL3DXX 10cw to close 160	DL6LAU 15cw to close 80cw	UA3AB 12cw to close 40cw	04	10pm	W1 10cw to close 160	W3 12cw to close 40cw	E2 20ph	rest	W2 15cw to close 80cw	rest	E3 40ph	rest	rest	(free)	E4 10ph to close 30rtty	(free)	E1 75ph
K3NA 75ph	N5IA 20ph	RA3AUU 40ph	DL6FBL 30cw 30rtty	WA6CDR 160	DL6LAU 80cw	DL8LAS 40cw	05	2am	rest	rest	rest	E2 20ph	W2 80cw	W1 160	E3 40ph	E4 30cw 30rtty	E1 75ph	W3 40cw	(free)	(free)	(free)
ES5TV 75ph 15z 15ph	DL6FBL 17ph	RA3AUU 40ph	SP5XVY 30rtty 16z 12ph 17z 10ph	SP3DOI 17cw 17z 10cw	K3NA 80cw 15z 15cw	DL8LAS 40cw 16z 12cw	14	6am	rest	rest	rest, visit ship	rest	rest	rest	E3 40ph 16z 12ph	E2 17ph	W2 80cw 15z 15cw	W3 40cw 16z 12cw	E4 30rtty 17z 10cw	W1 17cw 17z 10cw	E1 75ph 15z 15ph
ES5TV 15ph	DL6FBL 17ph	SV1JG 12ph	SP5XVY 10ph	SP3DOI 10cw	UA3AB 15cw	DL3DXX 12cw	15	10am	W3 12cw	W2 12cw	E3 12ph	rest	rest	rest	(free)	E2 17ph	schedule logs	rest	E4 10ph	W1 10cw	E1 15ph
RA3AUU 15ph	DL6LAU 17ph	SV1JG 12ph	N5IA 10ph	WA6CDR 10cw	UA3AB 15cw to close 80cw	DL3DXX 12cw	20	2pm	W3 12cw	W2 15cw to close 80cw	E3 12ph	E4 10ph	E2 17ph	W1 10cw	E1 15ph	(free)	news stats	rest	rest	rest	rest

Figure 1: Station and operation schedule for 2008 Feb 17.

(Continued from page 2)

boat. On some days sea conditions prevent the daily deliveries, but the weather this weekend largely co-operates.

Today Broughton and Nick work ashore. The ashore crew prepare meals, wash dishes, move fuel and water, deliver food to the west camp (which has no kitchen), dig new latrines when needed, burn trash, and continue to improve our camp infrastructure.

02Z corresponds to 6PM local time. Broughton and Nick have barbequed fresh fish for supper, served with vegetables. Four operators rotate off-duty: Carsten leaves west camp, turning over 20m CW to Dietmar (DL3DXX). Ben wraps up his shift on 20m SSB at the operating position known as East-2; Cliff (SV1JG) will take over the chair, turning his attention to 20m RTTY. Harry turns East-1 over to Tönno (ES5TV), who cranks up the CQ machine with an unruly European pileup on 75m SSB, hunting for eastern Europeans during their narrow low-band propagation window.

Eric will come off-air from East-4 shortly, but gives his relief operator Robert (SP5XVY) a chance to eat dinner first. As Robert sits down at the picnic table, Eric leaves the dying 12m band for a brief pass at 30m CW, but quickly settles on 30m RTTY where demand remains high. When Robert takes over, Eric wolfs down a quick meal and heads off to his cot for sleep; his next shift begins at 2AM.

Les, in the middle of an 8-hour stint, walked away from East-3's 17m SSB pileup a half-hour ago to be the first at supper. Now he's back on the radio,

cleaning up a small pile of South Americans before focusing on Europe.

Within a half hour Robin has fixed the West-1 amplifier. Andy (UA3AB) sits down for a final check of 12m CW for Asians but finds slim pickings. By 03Z Andy locks the transceiver onto 17m CW to work JAs. Normally this radio would be hunting Europe on 160m. But this evening American contesters fill that band—and at this hour they focus eastward, running Europeans. Few of them would hear our signal on this crowded band until after European sunrise. The same situation holds on 80m cw, which explains why André continues at the West-2 radio with Americans and Asians on 15m cw.

Robin, feeling victorious after his field repair of the West-1 amplifier, arrives back in the east camp just in time for the last scraps of supper. Mid-meal he remembers: a coffee pot remains neglected at the west camp because it takes only 120 VAC. He steps over to the supervisor's laptop to type a gab message: "Please someone look at the coffee pot at west camp. Need its power load rating at 120v."

Seconds later Andy replies, "Looking at it: 975 watts."

"OK," types Robin, "I may have a suitable transformer."

"This would save many lives," answers Andy. A few minutes later Nick leaves east camp bearing both the transformer and André's dinner in a sealed container. Robin heads off to sleep.

The gab network falls silent. Just three messages

(Continued on page 4)

A Day in the Life of a DXpedition—VP6DX (con'd)

cross the computer screens during the next four hours. At mid-shift two west stations QSY: Andy to 160 and Dietmar to 40m cw. The hourly rate meters climb from 424 to 514 to 666. The evening rushes by.

06—10z (10PM–2AM)

Harry, after a too-short nap, relieves Les on 40m SSB. Les, fortunate to have his 8-hour rest period occur in darkness today, wastes no time finding his pillow.

Carsten was the only other operator to come on duty at 06Z, and at 0619Z André asks where he is. Other operators, preoccupied with pileups, overlook this request. Ten minutes later Tönno sets down his headset temporarily to check Carsten's tent, first on the right along the path to the lagoon. He replies the tent is empty. André sticks with the 20m CW pileup for another 90 minutes. Oops!! Tönno had checked the wrong tent and Carsten over-slept his alarm clock. He hurries off into the darkness for the west camp.

To help eliminate cross-station interference when operating two stations on the same band, we divided the operating positions into two camps: east and west. Viewed from above, over 800m separates these two radio tents; see Figure 2.

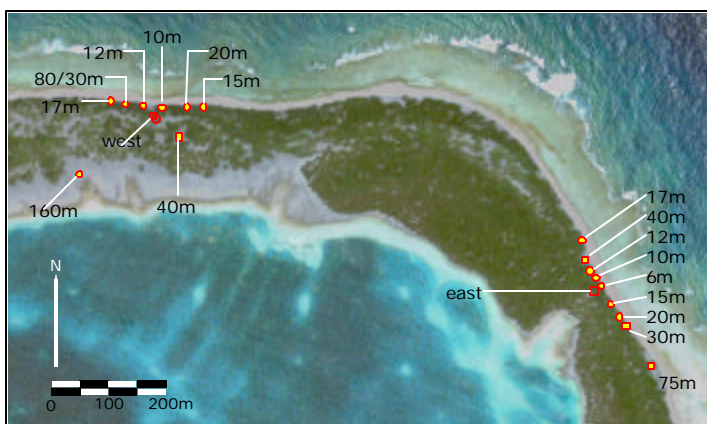


Figure 2: Transmitting antennas and radio sites, as built.

A path along the edge of the inner lagoon connects the two camps but, because of deviations around trees and water, one must walk about 1100 meters. About one-third of the walk crosses a rough, eroded limestone plateau with large chunks of broken limestone washed up by past stormy seas. It takes about fifteen minutes to make the crossing, with a flashlight held low, below the waist, creating

larger shadows to emphasize the irregular terrain.

Each camp includes a full set of transmitting antennas, with the exception of 160m (at the west camp only) and 6m (at the east camp). Antennas stand in a specific sequence (see Figure 3) to separate harmonically-related bands such as 80m and 40m. Typically 900m separates the two transmitting antennas for the same band. This site plan forms just one of five engineering decisions that work together to permit us to run two full-power transmitters on the same band, even on the very narrow 30m band, with no cross-station interference:

- o Transmit antenna separation.
- o Choice of transmit frequencies.
- o Excellent phase noise and receiver characteristics of the Elecraft K3 transceiver.
- o Bandpass filters.
- o Amplifiers with Pi-L output networks.

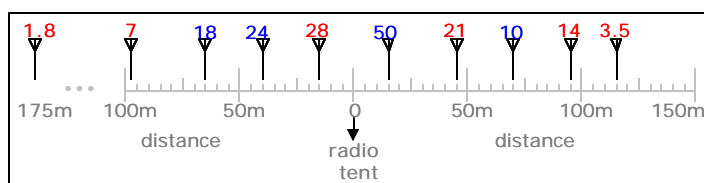


Figure 3: Designed sequence and spacing for transmit antennas.

As Carsten walks along the lagoon, Andy abandons the 160m pileup for 80m cw. We haven't spent any time on 80m cw tonight, and now that Europe has closed, thousands of American contesters search for fresh meat... and that fresh meat is Andy! When Carsten arrives, André walks just a few meters to an extra cot next to the west radio tent. After ten hours on the air, he needs a nap. Dietmar will let André sleep two hours beyond the start of his next shift at 10z, in part because 40m demonstrates tremendous depth tonight. At 10z Asia opens all the way to UA0A (Krasnoyarsk Kray) to the north-northwest—while at the same moment the band remains open to western Europe, with Portugal, Spain and England logged. All this DX goes in the log along with a massive pile of Americans, hot for the Ducie Island multiplier in the ARRL DX CW contest. What fun!

As this period closes, an alarm clocks rings among the sleeping tents. Eric shuts it off and wakens Robin. A few minutes later Robin leaves for the west camp, and Eric enters the east radio tent.

(Continued on page 5)

A Day in the Life of a DXpedition—VP6DX (con'd)

(Continued from page 4)

10–14z (2AM–6AM)

The clock hour rate peaked two hours ago at 698, and has since declined as the MUF drifts down. The next hour will stand as the slowest of the night: 368 QSOS.

Tönno, after 8 hours on East-1, is scheduled for a break. Not feeling tired, he gives up his 4-hour off-time to allow Milt more sleep. He takes a short break to stretch his legs, and then replaces Cliff on 20m SSB. Eric takes over 75m SSB, and looks forward to a new listening experience.

During the last two daylight periods Milt and Robin constructed the low band receiving antenna system depicted in Figure 4. Back last November, discussions between Robin, Carsten and Eric considered two approaches for receiving antennas:

- o Separate beverage systems for the east camp and for the west camp.
- o A shared beverage antenna farm, midway between the two radio sites.

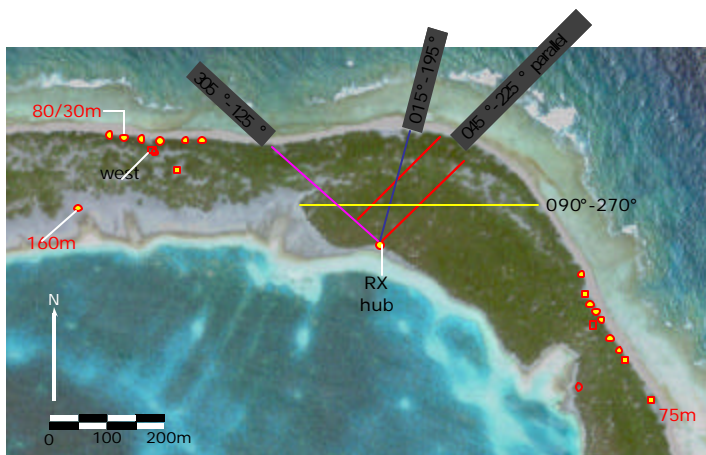


Figure 4: 160, 80 and 75m transmit antennas and receive beverage antenna systems.

For a given amount of labor hours, this design team felt the shared approach would provide better results. On Thursday and Friday, Robin and Milt threaded three of the planned four beverages through the trees and assembled a centralized, remote-controlled switching hub. The hub allows the 160m, 80m CW and 75m SSB operators to independently select one of eight listening directions. Tonight we use these antennas for the first time. This superb system not only gives us excellent hearing on these low bands, but also provides wonderful insight into propagation.

Now Robin enjoys the results of this work under

the hot sun as the 160m CW operator. Static from nearby rain showers crackles constantly, and the beverages make it possible to copy callers. Switching the receiver AGC off also helps; the AGC hang from static crashes otherwise covers up key milliseconds of quieter times.

At 1030z Carsten abandons 20m CW, inheriting the 80m CW pileup. The island now settles into its typical post-midnight configuration: one station on 160m, two stations on 80/75m, two stations on 40m, and the remaining two stations on 30m or 20m (depending on propagation). Tonight 20m remains open all the way through, an infrequent occurrence during this expedition.

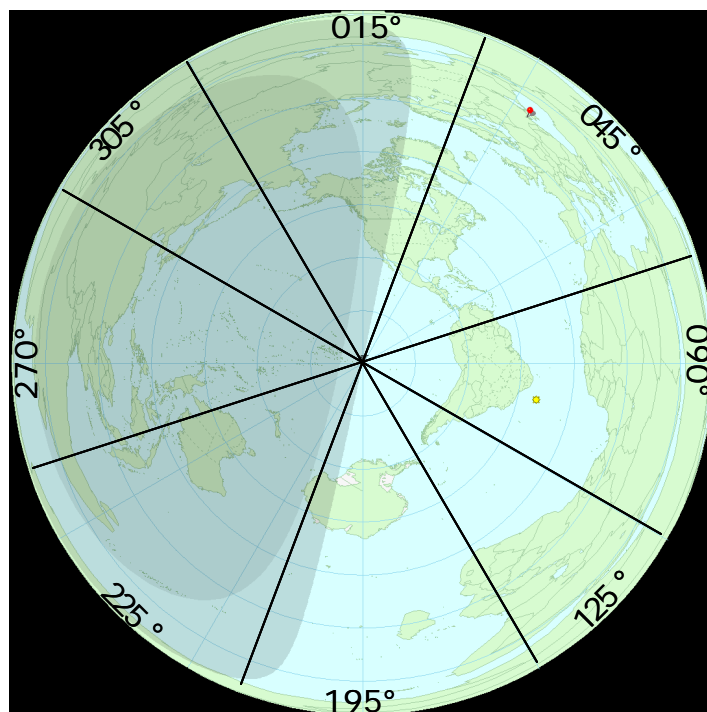


Figure 5: Equidistance azimuthal map, centered on Ducie Island. Sectors represent mid-points between receive antenna boresight bearings.

Figure 5 shows the midpoints between the beverage patterns on an equidistance azimuthal (“great circle”) chart. The contest exchanges received from North American stations provide confirmation: the 015° beverage favors west coast signals and the 045° beverage favors the east coast. A W6 calls in, but is much louder on the 045° beverage... and then sends “GA” (Georgia) as his exchange. Stations on the line from Texas through Michigan prove equally strong on both beverages, just as expected. During

A Day in the Life of a DXpedition—VP6DX (con'd)

the remainder of the expedition this system gives us a valuable tool to favor eastern Europe over western Europe, and to identify long path propagation. During the next two nights Oman, just 100km from Ducie Island's antipode, will be worked on top band cw and SSB, and long path 160m contacts completed with dozens of stations in the Ukraine and Russia's Volga and northern Caucasus oblasts, all of whom will be basking under their late afternoon sunshine.

Tonight, however, the CW low band operators focus on the contest and Asia. QRN continues to be "horrid" on top band, according to Robin's complaint on the gab window. But Andy notes "The beverages rock!" As the sun rises over the Caribbean, QRN levels drop quickly on the 045° beverage.

Only the 75m SSB operator has the time to explore the long path on the 195° and 225° beverages. At 1300z JT1BV calls in on the 305° beverage. Forty minutes later, as twilight lightens the eastern sky, the long path opens up to Finland, Moscovskaya and Rostovskaya oblasts.

The final hour of this shift yields only 437 QSOS, but the exotic calls openings make it fun. 20m, slow through the night, strengthens by 1330z. At sunrise Harry leaves 40m SSB for 17m, already open to Europe.

14–18z (6AM–10AM)

Carsten and Eric squeeze the last out of 80m CW and 75m SSB, respectively. 80m CW closes first and, about 15 minutes later, absorption creeps up a bit higher in frequency to close the 75m band. Ben pushes the chair away from the 30m cw East-4 radio to allow Robert to put the station on RTTY. After a quick bite of breakfast, Ben pokes the East-1 radio onto 15m SSB, where the band has opened to Europe.

A similar frequency shuffle occurs at the west camp. Les arrives at dawn to move the 160m radio to 17m CW. Carsten hops from 80m to 20 CW. But André stretches out 40m CW long and skew path openings to Europe for another two hours. Finally the rising D-layer absorption shuts down 40m. Nick and Neil delivered breakfast and gasoline an hour ago. André steps out into the sunlight, first to refuel the generators and then to refuel himself. Thirty minutes later he relieves Carsten on 20m CW, and Eric arrives to take the vacant operating position to 15m CW, running a mix of testers and Europeans. Rates are good but both Ben and Eric note signals on 15m barely audible above the hiss of the antenna

noise floor. The aggregate rate moves up: 645 during the 1400z hour... then 708 the next hour... and 806 during the 1600z hour. Not only the feverish pace of the pileups make the operators sweat. Sunshine bakes the radio tents. Shirts move from torsos to chair backs. Shoes and socks pile up on the tent floor. Between callers, operators reach out to turn on the floor fans and adjust their direction for maximum cooling.

Back during the hours before sunrise, the low band operators debated priorities for the next phase of receive antenna construction. Should a parallel 045° wire be added to narrow that direction's pattern and return the static level? Or should an east-west beverage be added to improve reception in the southern Caribbean, Central America, northern South America, southeast Asia, and Australia? The comparative difficulty in copying signals from these regions leads to consensus in favor of the new east-west beverage. Robin and Milt don't hesitate. Right at dawn they head into the bushes to get the wires up before the full midday heat arrives. Milt, always full of energy, runs a 600m long wire-pair right to the beach! During the next two nights the operators conclude this beverage is *too* long, making its pattern too narrow; Milt will make adjustments on Tuesday.

At 1630z the first of a sting of watery signals from Scandinavia show up on 15m, and absorption causes 30m signals to fade. Andy takes over from Robert at East-4 and moves this radio to 12m SSB, hoping for a good European opening. An hour later Harry takes this radio up to 10m CW, which explodes with contest callers. Fortunately, the contest activity introduces few dupes into the log. The decision to work the contest proves not only fun for the operators, but also beneficial to the overall expedition results.

18–22z (10AM–2PM)

As mid-day approaches, the chat message volume increases on the logging computer network. Rising D-layer absorption in the ionosphere reduce signals on 20m and 17m. As the percentage of unanswered CQs increases, operators turn to chat messages to pass the time. More than time is passed: when a DX station answers a CQ, the VP6DX operator checks the Win-Test display to see on what other bands that station has yet to work us. Often a little coaching occurs: "By the way, you can try working us on 12m sideband now. We are transmitting on

(Continued on page 7)

A Day in the Life of a DXpedition—VP6DX (con'd)



Figure 6: Microwave link antenna on 6m bamboo pole used for data link between east and west radio camps. 75m 4-square antenna in the background.

(Continued from page 6)
24987 KHz..."

Within each radio camp, Wi-Fi links each logging computer (a ruggedized laptop) with a Wi-Fi router. A microwave link, designed and tested by Milt, connects east and west sites together. Microwave antennas with integrated transceivers sit atop 6m bamboo poles. At the west camp this pole pokes up through a tree next to the operating tent. But at the east camp the first pole location (next to the supervisor tent) failed. A slight rise in terrain to the northeast blocked the path. Relocating the antenna down next to the lagoon (Figure 6) provides a reliable line-of-sight connection. A couple hundred meters of CAT5 cable conveys DC power and data signals between the microwave transceiver and the router back at the supervisor tent. With floating batteries on the DC supply lines, this system proves robust even in the occasional heavy tropical rain shower.

Harry starts his 8-hour rest period by adding his dirty laundry to the pile on the bench next to the field kitchen. 10AM to 6PM represents the most difficult sleeping period: bright sunshine and overly hot air in the tents combine to challenge even the most exhausted operator. A better solution involves schlepping a cot under a blue tarp suspended below some trees near the beach. The breeze from the ocean, slightly darker shade, and separation from other camp noises help a bit. Eyeshades and earplugs help more. But daytime rest usually means a series of hot naps. Fortunately, the 28-hour cycle means Robert will enjoy sleeping in the late afternoon and

early evening tomorrow, and his sleep period will be entirely in darkness on Tuesday.

The shift change provides the trigger to not only change operators but also bands. Cliff takes over from Tönno on 20m SSB to serve the vast Sunday afternoon American pileup. Robert takes on 17m SSB, also populated by North and South Americans. Ben continues on 15m SSB while Dietmar takes 15m CW from Eric; both run a mixture of Americans and western Europeans. Tönno and Andy run 12m SSB and CW, respectively. Les manages 10m, only marginally open today, and switches between CW and SSB to keep up some semblance of productive rate. Nonetheless, the aggregate rate falls to 592 for the 18z hour, up to 694 for 19z, back to 548 at 20z. Absorption finally blanks out 20m, forcing Cliff up to 15m SSB for the remainder of his shift. The last rate hour of this period improves to 738.

The crunch of footsteps on old coral announces Matt's arrival to east camp. Matt drove one of the *R/V Braveheart's* three landing boats across the lagoon's shallow southern entrance and up to the inner shoreline. He delivers waterproof canisters of food to the kitchen. Right behind him walks Theresa with a yellow waterproof bag—clean laundry! Theresa has good news for Eric: she has solved the Mystery of the Vanishing Socks. Over the last few days Eric's socks have been sent off to the ship, but no clean socks return. Theresa discovered that Milt's socks look exactly like Eric's. Later this afternoon Milt uses a permanent marker to write "Milt" on his share of Mystery Socks. Eric will achieve an accidental revenge. After the end of the DXpedition, Eric will open his suitcase at his home in Boston to discover one sock with the word "Milt" written on its sole.

Neil prepares a light lunch at noon: cabbage, a kind of clam ceviche (yum!), and freshly-made bread. The daily baking of bread remind us of the importance of keeping the generator fuel supplies topped up. Last week on Thursday, a neglected generator ran out of gas mid-morning. The bread-making machine, halfway through mixing and baking a loaf, instantly forgot where it was in the menu sequence. No bread for us that Thursday!

12m and 10m both couple into transatlantic sporadic E: dozens of stations from Portugal, Canary Islands, Azores, Melilla, all enter the log during the middle two hours of this shift. At the very bottom of the sunspot cycle, these DXers must share our

(Continued on page 8)

A Day in the Life of a DXpedition—VP6DX (con'd)

(Continued from page 7)

sense of wonder at their nighttime high band openings into the Pacific. On 10m the Canary Islands appears to be the main beneficiary, but Les works Portugal as late as 2115Z.

22–00z (2PM–4PM)

Carsten takes over 15m SSB from Cliff, who takes over 12m SSB from Tönno. Tönno, by sacrificing his 4-hour break period, has been on the air almost continuously for the last 20 hours and gets the “iron pants” award for the day. Extra shifts from him, Harry, Les, and Ben have allowed Milt and Robin to complete and test the new beverage antenna.

And they don't stop there. Next job: cut some replacement insulators of a larger size for a 17m antenna. The current insulators and string, after almost a week in the salty breeze, arced over this morning.

In the afternoon heat a few off-duty operators can't sleep, and go to work assembling the 6m Yagi on a bamboo pole. Eric digs out the spare Elecraft K3 transceiver and programs it as a beacon for 6 meters. We don't have enough operators to dedicate a person during each shift to monitor this CQ machine. But, by setting the radio on speaker watch at the picnic table where most off-duty operators hang out, we hope to catch any answers. Nothing but solar hiss is heard today... and tomorrow... and the next day....In fact, we don't hear anyone on 6m during the entire DXpedition.

D-layer absorption declines toward the northeast, permitting deeper Sunday afternoon pileups and sending the 22z hourly rate up to 795. These good rates on the high bands might not occur late in the DXpedition, and QSO totals on these bands lag behind those on the lower frequencies, so the team elects to delay a shift down the radio spectrum. Patience is rewarded: after a 90 minute gap, transatlantic sporadic E reappears on 10m and more callsigns from Portugal fall into the log. 10m opens at local midnight in Europe—WOW! And, simultaneously 10m and 12m break open to Japan, Hong Kong, Korea and China. Although the rate during the last hour of the GMT day falls to 480, it's still exciting. Dietmar's gab message says it all: “CT around midnight ... amazing. Like in good sunspot years. . . .”

At 00z the ARRL DX contest ends. Wow, that was fun. And we have many more days of fun ahead of us before we must return home.

— END —

(Editor's Note: Eric Scace's (K3NA) report in the form of a narrative of a day in the life of a DXpedition is a departure from the format of many of our reports. I found it to be an interesting change. It provides the reader with insight in how much energy, self sacrifice, and innovation a DXpedition team must use to provide those of us “back home” with our precious QSOs. In addition, it gives an inkling of just how much expertise is needed to plan and execute a successful DXpedition. From antenna design at home, to antenna modifications on-site, to dynamic interpretation of propagation information, to on-the-fly diagnostics and repairs of linear amplifiers, we can understand why this team enjoyed one of the most successful DXpeditions ever. We can all learn from reading this report.)



The Team that brought you VP6DX.



Heat by day, insects by night. All of us need to keep this image in mind when we work an exotic DX entity from the comfort of our shacks in our cooled/heated homes.

SEDCO Grants Awarded to INDEXA and NCDXF

The Southeast DX and Contest Organization (SEDCO) fourth annual convention was held on September 27 in Pigeon Forge, TN. SEDCO distributes all net proceeds after expenses to various groups that support DXing. Two principal recipients again in 2008 were INDEXA and Northern California DX Foundation (NCDXF). INDEXA is very appreciative of the support given to it by SEDCO over the past few years.

Donations from both individuals and corporations provided for a number of wonderful door prizes and created excitement for two Grand Prize Raffles—radios donated by Icom and Yaesu.



INDEXA President Gary Dixon, K4MQG, and Len Giraldi, K6ANP, President of NCDXF were both present for the SEDCO Convention and awarded grants by SEDCO's Lynn Lamb, W4NL.

Robert Denton, KF4NO (SK)

Robert Denton (KF4NO), a former officer of INDEXA passed away on September 29, 2008. He held several positions and was very active in the early affairs of INDEXA.

We Asked, You Answered!

In the Summer 2008 issue of this newsletter, we asked you for your comments on whether a three column format of the newsletter was preferred over the single column format used in the recent "Special Editions". Thanks for all the thoughtful replies. I heard from some vision-impaired members who use a computerized "reader-assist" to enlarge the type-written page. For those people, the three column format requires a lot of retracing, and they'd prefer the single column format. Other comments about the single column format stated that while it reduced scrolling on the computer screen, retracing a long printed line with one's eyes sometimes caused loss of position. Still a few others commented they liked the "professional" look of the three column format.

So, this month, we'll try a compromise to reduce re-tracing/scrolling somewhat, avoid long retraces with one's eyes, and still keep a "professional" look to the newsletter—a two column format! Comments are again welcome.

—The Editor, K8YC (jascott@mi-connection.com)

THE QSL MAN® - W4MPY

Wayne Carroll

P. O. Box 73

Monetta, SC 29105

Phone/FAX (803) 685-7117

Email: w4mpy@w4mpy.com

Web: www.qslman.com

Quality and Value for over 20 years

ProLog

Since 1991, ProLog has been the logging program of choice. For a features list, screenshots, reviews, user comments and secure ordering, visit us at:

WWW.PROLOG2K.COM

Datamatrix 5560 Jackson Loop, NE Rio Rancho NM 87124
Orders Only Please: 1-800-373-6564 Info: 1-505-892-5669

DX World Guide by Franz Langner, DJ9ZB

ARRL Product Catalog: www.arrl.org/shop—\$25 + S/H (US)
1-888-277-5289 (US) 860-594-0335 (non-US)

INDEXA POB 123 · Catawba, SC · 29704 · USA

The International DX Association

Annual Membership: \$20 U.S.

Support DX, participate in daily DX Info Session,
receive quarterly INDEXA newsletter
www.indexa.org



WWW.DAILYDX.COM



Since 1989

QRZ DX Newsletter

Available each Week by Regular Mail; Or, by email as a PDF file with Special bulletins on late breaking DX News.



Since 1979

Six times a year, **The DX Magazine** brings you stories about DXpeditions by those who were there and much more.

DX Publishing, Inc.

PO Box DX

Leicester, NC 28748

CALL: 877-397-8254